



Increasing Order Fulfilment of Spare Parts in WIS and AS/RS Warehouse in PT. KTK Using Operational Excellence to Enhance Competitive Advantages

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ABSTRACT: The research is focused on the inventory storing process and used both generic and thematic framework to gain a better understanding from both perspective between business environment and the operational environment that currently occurred in PT. KTK. Competitor analysis, 7Ps marketing mix, and SWOT analysis are used to gain an understanding of the internal and external situation of PT. KTK and to compare PT. KTK with its competitors. On the operational sides, operational excellence is used to gain a better understanding and formulate a potential solution to improve the existing order fulfillment of PT. KTK. DMADV methodology from Six Sigma is used to gain a better understanding, measure the related metric, analyze the problem, providing a solution design, and implementing the solution in the existing warehouse process in PT.KTK. To align the operational strategy with PT. KTK business strategy, Porter's Generic Strategy is used to gain and decide the best strategy for them. And the result, PT. KTK should focus on cost leadership by improving the effectiveness and efficiencies of their warehouse process enhance competitive advantages. Lastly, after the implementation is conducted and the result is observed, the solution can improve the order fulfillment of PT. KTK warehouse by 52.5%.

KEYWORDS: Business Strategy, DMADV, Inventory, Order Fulfillment, Six Sigma.

INTRODUCTION

As a distributor company, order fulfillment is a crucial thing to ensure the business is running well and the warehouse needs to make sure that the order from the customers can be fulfilled. PT. KTK warehouse is divided into two categories, which are WIS warehouse to store a goods in the form of boxes and bulk and AS/RS or a robotic warehouse that stored goods in the form of pieces. Both of this place serves their own purpose. In the ideal condition, WIS is specialized to fulfill bulk orders and AS/RS is specialized in fulfilling small quantity orders. However, the existing condition shows that there are still many bulks order fulfilled from WIS warehouse and many small orders fulfilled by AS/RS warehouse. This caused a problem in the effectiveness and the efficiencies of the order fulfillment process.

To be able to enhance the order fulfillment, gaining understanding of the whole warehousing business process is a must, and focusing on the early stages of the warehousing process is a crucial thing because it will affect the latter warehousing process. The early stages of the warehousing process include the inbound process and the storing process of the warehouse. Inbound process is a process where the process itself it associated with receiving and storing goods into the warehouse. It's an important thing to manage the inbound process because it's one of the crucial processes that can enhance the whole warehousing process (Audi & Raage, 2020). In PT.KTK however, in terms of inbound process, with the two-warehouse category (WIS & AS/RS), there are no methods in classifying quantity that should be stored in both WIS and AS/RS. The current classification in divide the inbound goods by 70:30 which 70% of the received goods will be stored in WIS and the rest 30% will go straight to AS/RS. However, after a detailed observation of the orders, there are some findings that 86% of the orders are retails orders which will be fulfilled by AS/RS warehouse. The problem is, the warehouse only stored 30% of the received goods in AS/RS, hence there are 56% gaps between the items stored in AS/RS and the actual needs in AS/RS warehouse and this finding is shown in Figure 1.

On average, after a week of observation, the order comparison shown in Figure 1.1 is indicating that the current 70:30 ratio is not fulfilling the order ideally. Hence, there's a gap between the inventory storing process and the actual order fulfillment demand. And by improving the existing inbound process in PT.KTK warehouse, it will improve the overall order fulfillment in both WIS and



AS/RS to reach the ideal condition which are retail order picked from AS/RS and bulk order picked from WIS warehouse. By solving this problem, it will not only benefit the warehouse business process but also enhance the time and cost effectiveness and efficiencies and will enhance the competitive advantages from PT.KTK to compete among their competitors. From the finding in the initial observation, it's safe to say that the existing 70:30 classification methods are not representing the actual bulk and retail orders and there are still many retail order items are fulfilled from WIS warehouse.

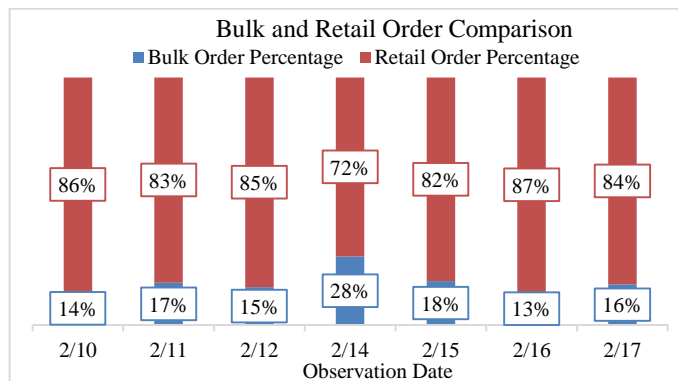


Figure 1. Bulk and Retail Order Ratio Comparison

BUSINESS ISSUE EXPLORATION

Conceptual Framework

Conceptual framework is synopsis of many things that has been found from reviewed literature sources, mapping out a research agenda to increase understanding of the research itself. It's also the result of multiple concepts related to the research brought together to explain and give a broader insight of things happening during the research. Conceptual frameworks represent the whole ideas and concepts from the findings, theories, and other type of guides for the research (Shikalepo, 2020).

Table 1. Group of Conceptual Framework

	Group of Framework		Source of Data	Source from Company
Generic for Exploration	SWOT Analysis		Observation, Research, Secondary Data, Brainstorming Session	1. PT. KTK Logistic Department Head (Mr. D) 2. PT. KTK Parts Division Head (Mr. H)
	Myk Pono's Competitor Analysis		Observation & Secondary Data	-
	7Ps Marketing Mix		In-Depth Analysis & Observation	-
Thematic for Exploration	Six Sigma	Ishikawa Diagram	In-Depth Analysis	-
Specific for Solution	Six Sigma (Operational Solution)		Brainstorming (In-Depth Discussion) & In-Depth Analysis	1. PT. KTK Logistic Department Head (Mr. D) 2. PT. KTK Warehouse Head (Mr. A) 3. PT. KTK Inbound PIC (Mr. Y)



Porter's Generic Strategy (Propose Business Strategy)	In-Depth Analysis & Validation from the Company	1. PT. KTK Logistic Department Head (Mr. D) 2. PT. KTK Parts Division Head (Mr. H)
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There are three categories of framework that are used in this research. The first is generic framework for exploration, these frameworks consist of SWOT analysis and Competitor Analysis. Each analysis is used to explore the external and internal condition of PT.KTK. External condition in PT. KTK is analyzed using competitor analysis to see PT. KTK among its competitors. The framework of this analysis is conducted using Myk Pono's classification. The next category of framework is Thematic for Exploration. This category of framework will be used to define the existing condition, analyze the problem, and formulate the solution to solve the problem that occurred in PT.KTK warehouse. The main framework used in this category is Six Sigma by using DMADV framework, a step-by-step method to solve problem that are occurred. The last category of the framework is a specific framework for solution. This framework will be the framework that will help to formulate a solution that will solve the problem that occurred in PT.KTK. There are two frameworks that are used in this category, the first is using Six Sigma to formulate the solution in the operational sides which related to effectiveness and efficiency of the process, and the second one is Porter's Generic Strategy to strengthen the operational solutions to be related to the business strategy of PT.KTK overall in terms of the cost reduction resulted from the operational solutions.

RESEARCH METHODOLOGY

There are two types of data that is gathered in this research, primary data, and secondary data. The primary data is obtained mainly using quantitative research by observing the actual condition on the field and gather the data for the research purpose. Meanwhile, the secondary data is obtained through historical data, journal, official website, books, article, and any other legitimate reports. Both data will be used to define, analyze, and solve the problem that is occurred in PT.KTK warehouse.

Myk Pono's Competitor Analysis

Competitor analysis is a way to compare businesses, products, service relative to its competitors. It's a way for a company to know its performance compared to their competitors on the market. The most crucial part in creating a competitor analysis is choosing the right competitors for the company. Myk Pono classify four category of competitors which classified into Direct competitors, different problem, different customers, and different product category (Pono, 2021 a).

1. **Direct Competitors**, it's a company who sold a similar product (uses, design, packaging, presentation), compete in similar market attract similar customer by using the same sales channel, and using similar strategy such as distribution channel, similar distribution network, operation, technology, it's considered as a direct competitor (Martínez & Díaz, 2012). PT.KTK operates as a distributor of a motorcycle spare part in East Java and East Nusa Tenggara, and a company that can be considered as a direct competitor will be PT. KSJY (Suma).
2. **Different Problem**, this category specifies the competitor is solving the different problem but for the same customers. Basically, it acted as an alternative to solve the problem of the same customers on the market (Chow, 2021). This means that both of PT.KTK and a competitor in this category will solving the different problem but for the same customers. And in this category, it will be a conventional motorcycle workshop.
3. **Different Customer**, this category is solving the same problem in similar way but for different customers (Pono, 2021 b). which means competitor in this category is solving the same problem as PT.KTK but have a different customer. The competitor in this category is a distributor of a motorcycle spare parts for different motorcycle brand which is PT. STSJ. This company is a distributor of brand B in East Java.
4. **Different Product Category**, this category is classifying the competitor that is solving the same problem for the same customers but using different approach and the approach can be vary. A company in this category would be ARRE part shop. This is a part shop that sells brand A motorcycle spare parts but focusing on end-user customers instead of retailers.

After categorizing all PT.KTK competitors, the next step would be analyzing thoroughly among these competitors using competitive analysis framework. It's a framework to compare the business strategy with their competitors. It's provided a detailed analysis about the competitors and give a brief description about the competitor itself (Indeed Editorial Team, 2021). The purpose is to analyze



and compare PT.KTK and the competitors that already identified using Myk Pono’s competitor classification and focus only on the direct competitor which is PT. KSJY.

Table 2. 7Ps Marketing Mix Comparison

7Ps Marketing Mix	PT. KTK	PT. KSJY
Product	Brand A motorcycle genuine spare parts and unit	Brand A motorcycle genuine spare parts
Price	following the HRP from the producer / supplier	following the HRP from the producer / supplier
Promotion	Using website social media, using brand A motorcycle branding, and sponsoring sports event.	using website, social media, and brand them as Brand A exclusive part shop.
Place	Only able to sell products to the dealer, service center, and spare part shop	Have 9 branch across East Java, sell directly to end-customers using offline and online sales channel
People	Have a customer care service to ensure customer satisfaction level and immediately got feedback after purchasing spare parts or motorcycle	have a customer service to provide feedback and complaints. Employee is understanding their products well.
Process	Have an automated system to ensure that the customers (spare part shop) will be supplied if the stock is low.	Provide a multi-channel platform (online and offline) to sell their products to a spare part shop or end-customers
Physical Evidence	Have two head office for motorcycle unit and aftersales services	Have 1 head office (warehouse) in Surabaya

7Ps Marketing Mix

Marketing mix is variable that is controllable that are combined to produces a desirable expected response from the target market and today the variables that is commonly used are the 7Ps which are Product, Price, Promotion, Place, People Process, Physical Evidence (Kotler & Armstrong, 2022). To get a better understanding of the 7Ps of PT. KTK, this research will also compare the 7Ps of PT. KTK direct competitor which is PT. KSJY. This comparison is believed will give a better understanding on PT. KTK marketing mix compared directly to its direct competitors. The 7Ps marketing mix comparison between PT. KTK and PT. KSJY can be seen in Table 2.

SWOT Analysis

SWOT analysis is one of many a tool used for strategic planning and management in a company. It can be used to effectively analyze both internal and external factors. It’s effectively used to formulate an organization strategy and competitive strategy. It’s a crucial thing to analyze both internal and external environment to formulate an effective strategic planning (GÜREL, 2017). The SWOT analysis of PT. KTK can be seen in Table 3

Table 3. SWOT Analysis of PT. KTK

STRENGTHS	WEAKNESSESS
<ol style="list-style-type: none"> 1. Main distributor of motorcycle unit in East Java and East Nusa Tenggara. 2. Got the highest market share of brand A motorcycle in East Java and East Nusa Tenggara. 3. Got multiple motorcycle unit warehouse across East Java and East Nusa Tenggara. 4. Advance spare part warehouse with Automated Storing / Retrieval System (AS/RS). 	<ol style="list-style-type: none"> 1. Only able to operate in East Java and Nusa Tenggara. 2. Acted as a distributor, PT. KTK is lack of certainty regarding the supply of motorcycle unit and spare parts. 3. Can’t sell directly to end-user. 4. Lack of data integration in spare parts business unit.



<p>5. One of the biggest and modest brand A motorcycle showrooms in East Java and East Nusa Tenggara.</p>	
<p>OPPORTUNITIES</p> <ol style="list-style-type: none"> 1. The emergence of big data application in warehousing process. 2. Head start in application of robotic warehouse (AS/RS). 3. Highly anticipated smart warehouse to enhance warehousing business process 4. Digitalization in many touch points of goods distribution supply chain. 	<p>THREATS</p> <ol style="list-style-type: none"> 1. The emergence of commercial-use electric motorcycle in Indonesia. 2. The production, distribution, and selling of fake motorcycle spare parts. 3. Increasing oil prices that affects the oil and tire production for motorcycle.

After analyzing the business situation in PT. KTK with all the external and internal condition, the next step would analyzing the operational situation that occurs in PT. KTK warehouse to gain a better understanding of PT. KTK as a whole company from its business and its operational condition.

Six Sigma

Six Sigma is a method or technique that is project-based with the purpose for improving effectiveness and efficiencies in a process. It’s a disciplined, data-driven, and customer-oriented approach for improving performances of products, services, or processes and can be considered as a proactive and prevention-based rather than reactive and detection-based (Patel & Chudgar, 2020).

DMADV

DMADV (Define, Measure, Analyze, Design, Verify) is methodology for improving a system that used to develop a new process flow, products, or services. DMADV should be used in a couple of condition which are the product or process is not yet exist at a company and needs to be developed. The second is when the existing product or process exist and already been optimized but not yet achieved the Six Sigma level. The application of DMADV is used when a customer requires product adjustment, improvement, or a creation of an entirely new process, service, or product. This aimed to create a high-quality product or service that meets customer requirements (Selvi & Majumdar, 2014).

Define

The main purpose is to identify the existing condition and what’s the potential problem in the process, product, or services. Identify purpose, identify, and set a measurable goal from both stakeholders and organization perspective, and to develop schedule and guidelines that will be reviewed, identified, and assessed (Pendokhare & Quazi, 2014). For PT.KTK, first that needs to be identified is the warehouse itself. Inside the warehouse of PT. KTK there are two categories of the spare parts warehouse which called WIS and AS/RS. WIS is a warehouse that functioned to store goods in the form of boxes for bulk orders. In fulfilling order of a smaller quantity goods, PT. KTK got a robotic warehouse that called Automatic Storage / Retrieval System (AS/RS) for this kind of order fulfillment.

Before incoming spare parts in stored and kept inside PT. KTK warehouse, the goods need to be received and need to be calculated regarding how much quantity to store in WIS and AS/RS. Before goods stored safely in either WIS or AS/RS, there are a lot of process need to be done before the goods stored in WIS and AS/RS. The process flowchart is shown in Figure 2.10. The flowchart shows the end-to-end process of inventory storing in PT. KTK warehouse. From the incoming spare parts arrived in a wing box, until it’s divided to WIS and AS/RS and stored based on the calculation of incoming spare parts.

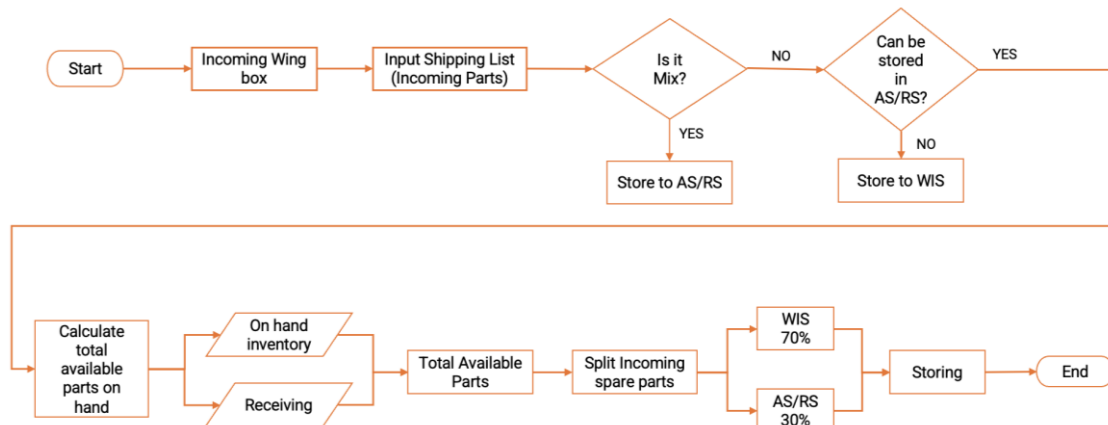


Figure 2. Inventory Storing Process Flowchart

Measure

In measure phase, all information gathered in define phase is evaluated and considered as the baseline status of the process and measure the existing condition based on the metric that is observed in the process (Venkatesh & Ravindranath, 2018). The first metric that needs to be observed and measured is the order fulfillment, whether the actual order fulfillment is on the ideal circumstances. The metric will calculate only the order fulfillment of AS/RS warehouse. The second metric that will be observed is the order fulfillment time, this metric is important to be observed because both of WIS and AS/RS is designed to fulfill different type of order, and if retail order is picked from WIS warehouse, it will consume a lot more time compared if the order is picked from AS/RS.

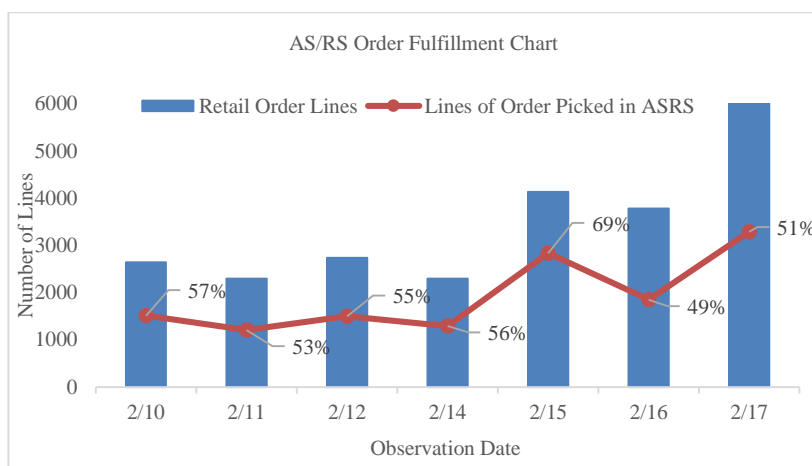


Figure 3. AS/RS Order Fulfillment Chart

Seeing from Figure 3, after a week observation, the chart shows that the AS/RS order fulfillment is far from the ideal condition. On average, the order fulfillment rate of AS/RS is only 55.3%. It means that almost half of the retail order still picked from WIS warehouse rather than AS/RS. This can be caused by the insufficient number of items stored in AS/RS warehouse, so the system will direct the order to be picked from WIS instead. Hence, the order fulfillment of AS/RS warehouse is still far from ideal considering almost 50% of retail orders still picked from WIS and this cause lacking efficiency and effectiveness in terms of order fulfillment in PT. KTK warehouse.

Seeing from Figure 2.12, it showed that there is deficit between the actual job completion time and the ideal time, this caused by the wrongly fulfilled order that resulted in longer job completion time. On average, the job completion time in PT. KTK warehouse is 65.1 hours. It means that on average, the warehouse needs more than two days to fulfill the order from the customers, meanwhile

the desired lead time for job completion is no more than two days. And compared to the ideal job completion time, on average if the order fulfilled ideally, the time of job completion will be 47.88 hours. It's just under two days of the desired target of job completion time. It means there are a 17.22 hours gap between the existing time and the ideal time. And if calculating that potential cost saving from enhance the order fulfillment by PT. KTK it can save on average up to 9 million rupiah per day. This calculated by multiply hourly minimum wage of Surabaya that currently sits at Rp4,375,479.19 (Gubernur Jawa Timur, 2021) (Disnaker, 2021) which resulted in Rp546,934.800 hourly wage (assuming 8 hours work hours per day). This will have a massive impact for PT. KTK operational cost if PT. KTK can get near the ideal condition of order fulfillment.

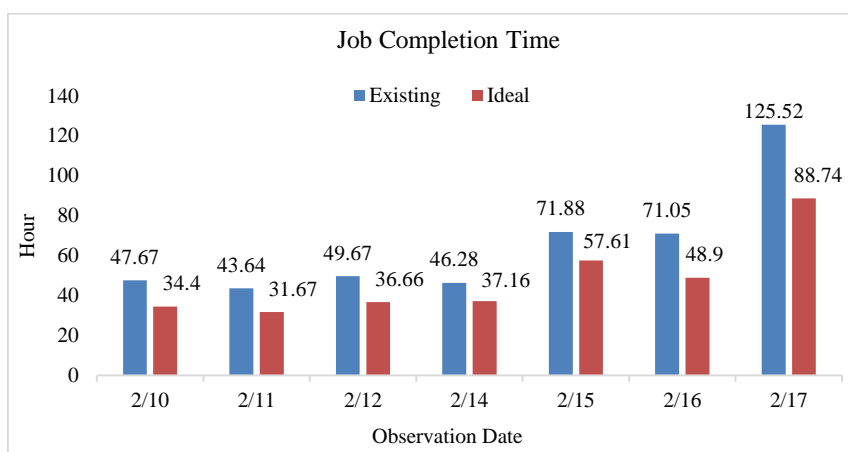


Figure 4. Order Fulfillment Time (Existing vs Ideal)

Analyze

Analyze is the step from DMADV is a phase that focuses on how to create customer value and analyzing what's the root cause that causing the problem that happened (Baptista et atl, 2020) in this step will be analyzing why the existing process is ineffective and thus causing the order fulfillment is lacking effectiveness and efficiencies. This analyze process will be using Ishikawa Diagram as shown in Figure 5to analyze the root cause of the ineffective storing process in PT. KTK.

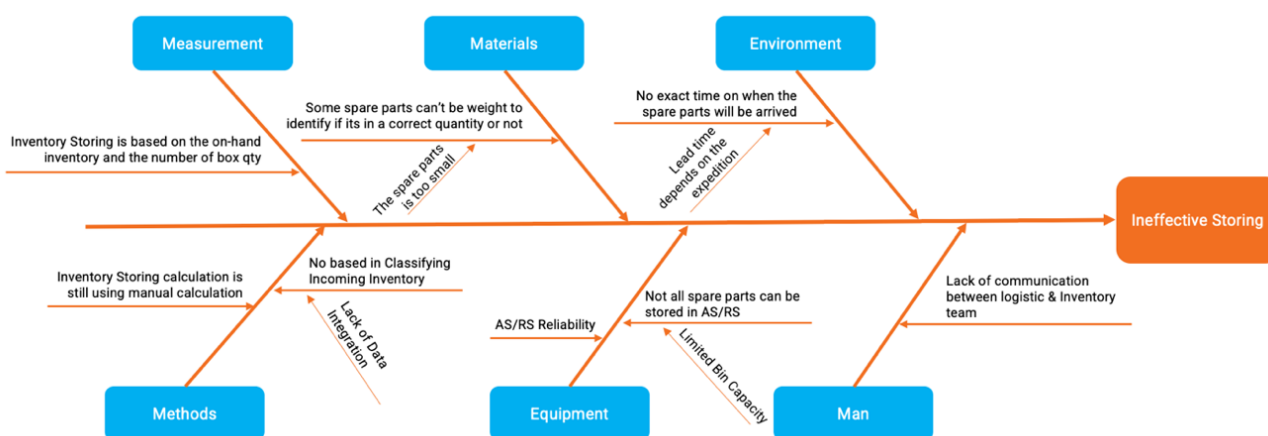


Figure 5. Ineffective Storing Ishikawa Diagram

BUSINESS SOLUTION

Operational Strategy Formulation

After deciding which is a better strategy for PT. KTK to pursue to increase their competitive advantages, the next step would be to formulate an operational strategy that is in line with the proposed business strategy to ensure the strategy will work for

PT. KTK in increasing their competitive advantages on the market. The operational strategy formulation will be continuing the Six Sigma methods which is Design steps to design a new process of inventory storing and verify the result after conducting an implementation of the proposes process in PT. KTK warehouse.

Design

This phase is a crucial phase in designing and developing a new process in a business process as it collaborates all the constraints, assumption, and requirements of the finalize process (Chandan et al, 2022). In this process, the first is defining what’s the input for the process of the inventory storing that will affect the new process of inventory storing process. Next is to define what will the process looks like in terms of calculating the quantity of incoming spare parts that will be stored in WIS and AS/RS. The last is the output of the process that will be a quantity of incoming spare parts that will be stored in WIS and AS/RS. The whole process can be seen in Figure 6.

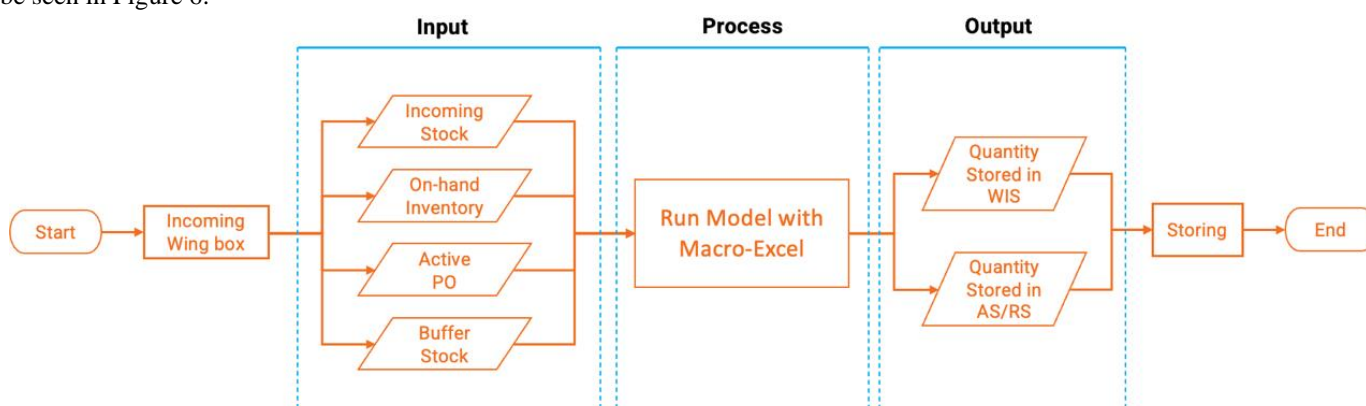


Figure 6. Proposed Inventory Storing Classification Flowchart

Verify

This phase will be about verification and validation regarding the implementation of the proposed solution in PT. KTK warehouse. Which is the inventory storing process flow that integrated data between active PO, buffer stock, incoming spare parts, and inventory on-hand. This phase also raises the control of the implemented process that will guarantee its effectiveness and efficiencies (Baptista et al, 2020). There are two types of metrics that will be observed, measured, and compared which are AS/RS order fulfillment and Job Completion time. The observation after implementation is conducted between March 10th, 2022, through March 16th, 2022. For AS/RS order fulfillment metric will be compared with the before implementation of the AS/RS order fulfillment result. Meanwhile, the order fulfillment time will be compared to the ideal time.

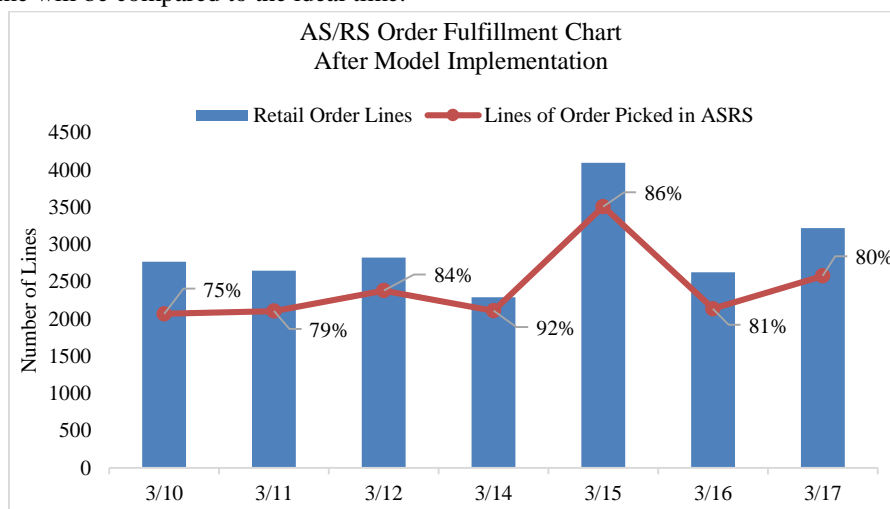


Figure 3. 1 AS/RS Order Fulfillment Chart (After Implementation)



Based on the result in Figure 7, the percentage of AS/RS order fulfillment chart on average after 7-day observation is 83%. This means that 83% of the retail orders are picked from AS/RS compared to 55% AS/RS order fulfillment percentage before the proposed inventory storing model is implemented. It means that by implementing the proposed inventory storing model, it has improved the AS/RS order fulfillment chart by 52.5%. to get a better understanding or comparison between before and after implementation result of AS/RS order fulfillment, the chart in Figure 8 show the comparison between the percentage of AS/RS order fulfillment before and after implementation of the proposed inventory storing model. in comparison, the implemented inventory storing model has improved the inventory storing of PT. KTK spare parts warehouse.

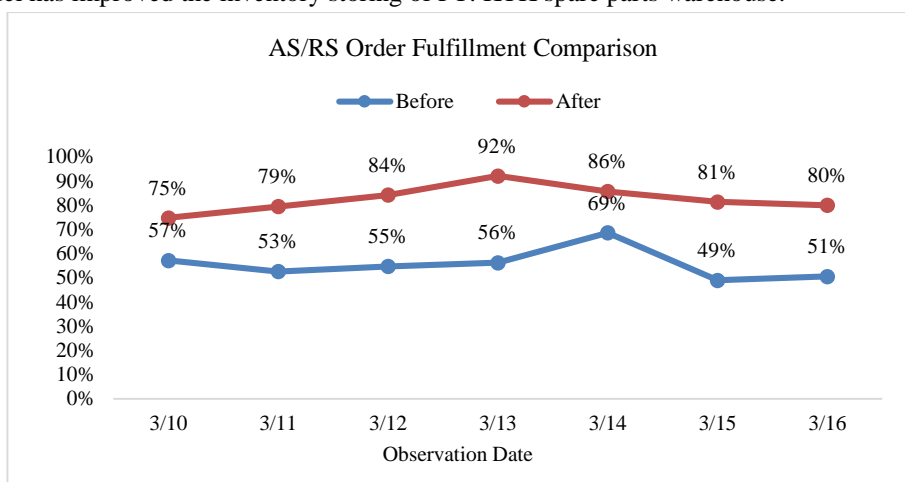


Figure 8. AS/RS Order Fulfillment Comparison

Based on Figure 9, using the new inventory storing model, after a week of observation, the average job completion time is 47.3 hours. Compared to before new process implementation, the average job completion time after a week of observation is 65.1 hours. This means, using the proposed inventory storing model, the job completion time improved by 27.3%. If the after-implementation job completion time is compared to the ideal time, the gap is 7.8 hours, which improved if compared to the gap of job completion time and the ideal time before implementation which is 17.22 hours. After the implementation, the gap between job completion time and ideal time is reduced by 9.42 hours. If converted into a rupiah for a potential cost-saving after implementation of the inventory storing model, the average daily operational cost that is potentially will be saved is Rp5,152,126.75. Assuming the minimum hourly wage is Rp546,934.899 [6], this potential cost saving after implementation of the proposed inventory storing model is align with the proposed business strategy that PT. KTK should be focusing its business to a cost leadership strategy to keep their competitive advantages.

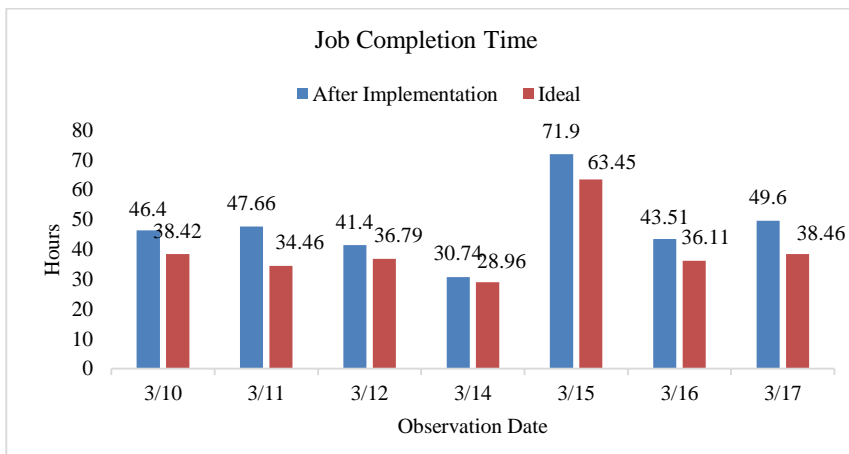


Figure 3. 2 Job Completion Time (After Implementation)



Porter's Generic Strategies

Porter's Generic Strategic was first introduced by Michael Porter in 1980. It consisted of three basic strategies, which are "Cost leadership strategy", "Differentiation Strategy", and "Focus Strategy", and every company should only focus to pursue one of these three strategies to mitigate the risk of wasting the company resources in a futile attempt to grow the business or they can be stuck in the middle (Opinaldo, 2022). And this strategy is best for PT. KTK on what strategy should they focus to keep their competitiveness in the market compared to their competitor.

1. Cost Leadership Strategy

The goal of this strategy is to make a comprehensive cost advantage compared to their competitors, and from the point of view of cost leadership, production cost needs to be reduced by lowering the operational cost of the production (Dombrowski, 2018). And for PT. KTK this can be achieved by lowering the operational cost in their warehousing business process by enhancing the order fulfillment of both WIS and AS/RS warehouse in PT. KTK. By lowering the operational cost of PT. KTK warehousing process, it will help. PT. KTK to achieve Cost Leadership Strategy and focus on this strategy.

2. Differentiation Strategy

Differentiation strategy focuses on meeting customer demands in different, and unique ways such as, product design, quality, speed, and/or flexibility. This strategy usually focuses on developing or giving a unique and innovative product (Linton & Kask, 2017). However, as a distributor company, PT. KTK doesn't act as a producer, yet they act as a distributor who got supplies from the supplier which is brand A motorcycle company. The same goes for its competitor. Therefore, for PT. KTK to pursue this strategy is a not great. Because PT. KTK won't be able to offer its customers a unique, and different products compared to its competitors.

3. Focus Strategy

The last strategy is more focused towards specific target market or niche market and this strategy can be implemented for time limitation products or services (Ali & Anwar, 2021). Usually, company who uses this strategy is a company who got a niche market. However, with broad market company like PT. KTK, it won't be a great strategy to pursue to increase their competitive advantages considering PT. KTK got a broad market in terms of motorcycle unit and spare parts. And it's better for PT. KTK to not use this focus strategy considering the market of PT. KTK.

After analyzing three of the Porter's Generic Strategies, the next is finding the ideal strategy for PT. KTK to pursue and focus on. Considering the analysis of Cost Leadership, Differentiation, and Focus Strategy of PT. KTK based on the analysis of the business situation on PT. KTK, it's best for PT. KTK to focus on cost leadership by lowering their operational cost of the spare parts warehousing process by enhancing the efficiency and effectiveness of PT. KTK order fulfillment for spare parts.

CONCLUSION

1. By proposing the new inventory storing process flow in PT. KTK spare parts warehouse for a more effective and efficient storing process, it improved the inventory storing process to be more accurate compared to the existing process flow. Using the proposed inventory storing model that involves data integration, by measuring the AS/RS order fulfillment rate, it increased the order fulfillment rate by 52.3% from 55% to 83% with 29% margin between before and after proposed inventory process flow is implemented. It means that more retail order is fulfilled from AS/RS rather than fulfilled from WIS. Because the ideal condition is that the retail orders should be picked from AS/RS rather than WIS for effective picking process. By improving the inventory storing process in PT, it leads to the whole warehouse operational business process effectiveness and efficiencies.
2. Using one of the operational excellence frameworks, which is Six Sigma with DMADV methodology, this research is successfully able to enhance the company's operation in the spare parts business process by enhancing the warehouse operations. Using DMADV methodology, this research can define the existing condition, measuring the metric that is crucial and needed to be improved, then analyzing what is the potential root causes and designing the solution to enhance the company's operations in PT. KTK warehouse. The proposed process flow is implemented and in the verify phase, the metric is measured and compared with the condition before the proposed process is implemented. The result is the overall warehouse business process is enhanced. The order fulfillment rate is increasing and it's closer to the ideal condition with the average of 83%. In terms of job completion time, the time is improved from 65.1 hours before implementation to 47.3 hours. This is a



27.3% improvement after implementing the proposed inventory storing process. By using operational excellence to address the problem and provide a solution, PT. KTK operations in spare parts warehouse is improved.

3. After analyzing the better strategy to pursue for PT. KTK using Porter's Generic Strategies, considering the analysis result of the SWOT and 7Ps marketing mix, and using competitor analysis, its best for PT. KTK to pursue the cost leadership strategy. This strategy can be achieved through operational excellence by improving the operational of PT. KTK in their spare parts warehouse operations. By using operational excellence, the proposed operational strategy to improve the inventory storing process is successfully improved the warehouse operations in PT. KTK warehouse. And by keep implementing the new process flow for inventory storing, it will potentially save up to Rp5,152,126.75 per day on average. This is in line with the strategy that is suitable for PT. KTK to pursue, and my reducing the cost, PT. KTK can gain more margins considering the selling price of their spare parts already established by HRP.

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